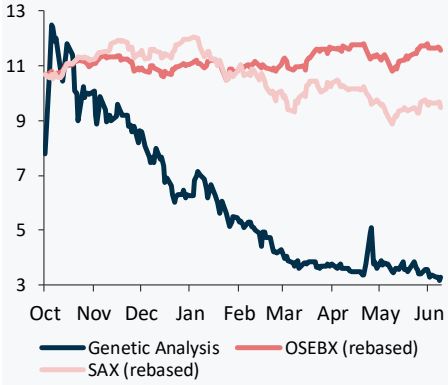
Genetic Analysis

Key share data	
Sector	Healthcare Technology
Bloomberg	GEAN SS
Market Cap (NOKm)	80
Net debt (NOKm)	-38
EV (NOKm)	41
Net debt / equity	-60%
Issued shares (m)	24.9

Share price



Performance	1m	3m	12m
GEAN	-7%	-18%	-59%*
OSEBX	4%	7%	12%
SAX	7%	-2%	-11%

*From IPO price of NOK 7.8 on 30 Sept 2021

Upcoming events	
1H21 report	August 18, 2022
3Q21 report	November 1, 2022

This report is paid for by the company covered in it

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A growing diagnostic company well-positioned to tackle the blooming microbiome market

We initiate coverage of Genetic Analysis (GA), a pioneering human microbiome field company based in Oslo. The Company has developed the unique GA-map® platform, a leading diagnostic platform for microbiota on the market. Genetic Analysis operates in an emerging and growing market and has developed products with limited competition. GA is expanding its distribution network in the USA and Europe, and is establishing its presence with a partner company in China. We see strong potential in the investment case if the stated goals are met and identify a fair value range of NOK 2.5-8/sh.

Investment case

- **First mover advantage.** Genetic Analysis has developed the only CE-marked standardized testing platform for microbiome analysis. GA has no direct competitors and has the only clinically validated and patented product of its kind in the market, with over 10 years in development.
- **Unique product and scalable platform.** Genetic Analysis is expanding its offering constantly, recently launching a second version of its dysbiosis test. The Company is developing new products, currently focusing on a diagnostic product in the Inflamatory Bowel Disease field. Potential portfolio broadening into obesity, diabetes, CRC and liver diseases in the future.
- **Emerging market.** The human microbiome market is very young and expanding rapidly, with many large pharma companies entering the sphere. The success of large players in the field is expected to be one of the catalyst for Genetic Analysis' offering.
- **Favourable health trends.** Health consciousness trend, especially post Covid-19, is expected to benefit Genetic Analysis, as more people look to strenghten their immunine system and gut microbiota.
- **Expansion in Western and Chinese markets.** Genetic Analysis is currently established in Europe and USA, and commercializing its offering through distributors and directly by GA. Chinese market is being entered by an agreement with a partner company Thalys, which will use its labs to further develop and distribute tests in China.
- **Ambitious plans and an attractive valuation.** Genetic Analysis has a growth plan to reach increased volumes and revenues in the following years by expanding the commercialization of the current product portfolio. Even with a very high WACC and conservative revenue assumptions, we see favourable fair value in the investment case for Genetic Analysis.

Company Profile

Source: Genetic Analysis

Genetic Analysis has been incorporated in 2008, based on the research of a leading gut microbiome Professor Knut Rudi from the Norwegian University of Life Sciences. The Company has completed an IPO and listed on the Spotlight stock market in Stockholm on October 1st, 2021. Spotlight Stock market is a Multilateral Trading Facility, that acts as a growth market for small and medium-sized enterprises. Spotlight presents itself as an alternative, easier method for a growth company to raise capital and list their shares. It should be noted that regulations for this market are lower than for the dominant exchanges such as Oslo Børs or Nasdaq Nordic.

Genetic Analysis has developed and launched a dysbiosis test on its unique GA-map® platform, it is based on a pre-determined target approach for simultaneous analysis of many bacteria targets in one reaction. The platform is validated and CE marked, and the algorithm developed by GA generates the result directly, without additional bioinformatics work.

The GA-map® Dysbiosis test currently identifies and characterizes dysbiosis for IBD and IBS patients and provides information about intestinal flora. More information about the Human Microbiome and Dysbiosis, related diseases can be found in a section below. Such tests can help monitor and improve disease treatment methods. The GA-map® platform is continuing developments and looking in to expanding in diagnostics for disease areas such as obesity, CRC, T2D and liver diseases. Even though GA has good markers, to achieve precision treatment the Company is further advancing on their biomarker development.

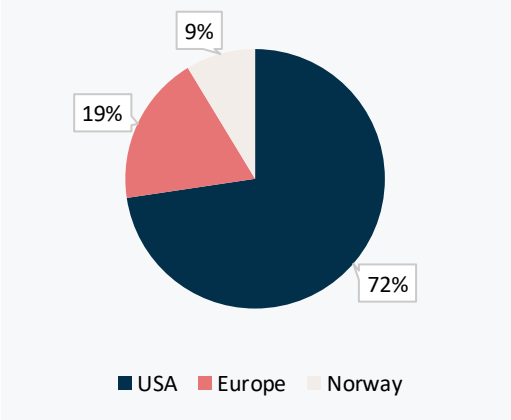
Source: Eagle Biosciences

The GA-map® Dysbiosis test has been used in more than 70 clinical trials for IBS, IBD, diabetes and obesity research and is properly documented through over 30 scientific articles. The Company is aiming to further increase the clinical research around their GA-map® platform to broaden the clinical use of the Dysbiosis Test, this will further increase the acceptance of Genetic Analysis business case.

Special emphasis is given on the improvement of Inflammatory Bowel Disease testing. Genetic Analysis is undergoing a separate biomarker project, that address an unmet clinical need, in predicting the severity of IBD development. The project also aims to help gastro doctors aid patients by predicting which treatment method will work best and the effectiveness of the chosen treatment. This project has received a grant funding of NOK 16 million from the Research Council of Norway. Further SkatteFUNN" R&D grants have been approved, which could add another NOK 4-5m in funding over the project period. This significantly decreases the risk of investment for the project and highlights the demand for this kind of test. The project will be performed in collaboration with the University of Gothenburg and Akershus University Hospital, it is currently advancing as planned and the total timeline for the project is 3 years.

Genetic Analysis has also developed a GA-map® COVID-19 fecal test. The GA-map® software analyses and identifies Covid-19 through fecal sample. The test is CE-marked and a high rate of accuracy, of around 98%. However, this testing method has been limited, especially in the west. The only breakthrough area being China, where it is more common to conduct this type of test.

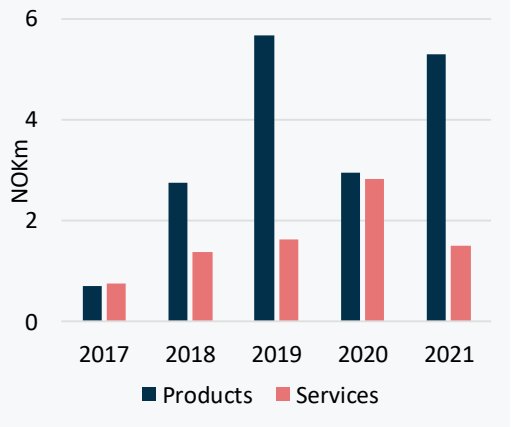
Revenues by major markets in 2021



Source: Genetic Analysis

Source: Genetic Analysis

Revenue by category



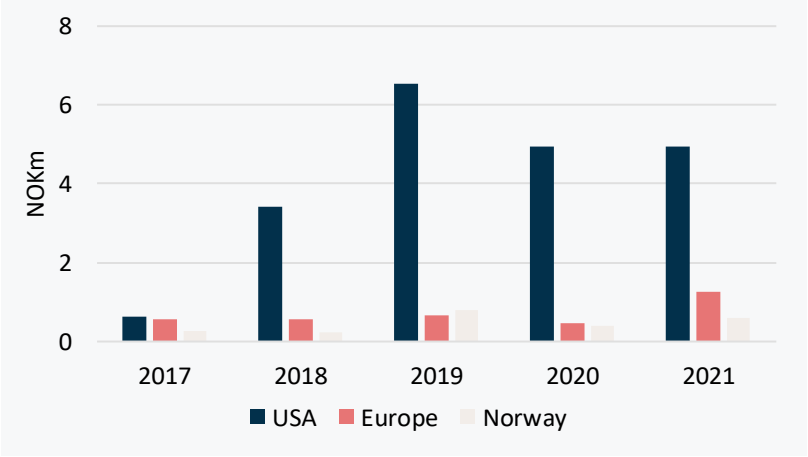
Source: Genetic Analysis, Norne Securities

Business Overview

Genetic Analysis business model stands on the development, manufacturing and marketing of In Vitro Diagnostic products – tests done on samples from the human body. The Company's value chain consists of in-house development and manufacturing, sales of reagent kits and software to laboratories, and sales of services from GA's service laboratory in Oslo.

Special emphasis is given to the IBS/IBD category, where Genetic Analysis aims to make the GA-map® testing a standard procedure before starting treatment, to improve the remedy method for patient's needs. The Company's main plan is to expand the commercialization of the platform through its own laboratory and third parties. The partner companies and laboratories buy the reagent kits and then run tests on the licenced GA-map® developed software and algorithm. The company has launched GA-map® to the EU and US markets and currently has 4 distributors in Europe and 2 based in the US. The US is currently the biggest market for Genetic Analysis, making up 72% of total revenue (2021). However, sales in Europe have started to increase, doubling their share of GA's revenues from 8% in 2020 to 19% in 2021. The smallest revenue share is in Norway and it has stayed relatively stable, most likely due to the size of the market and ceiling for market growth.

Operating revenues by major markets



Source: Genetic Analysis, Norne Securities

Genetic Analysis has partnered with Thalys Medical Technology Group to evaluate and develop diagnostic solutions for the rapidly growing human microbiota market in China. As gut microbiomes may vary regionally, different Pre-Determined Targets will have to be refined for China, in order to provide precise and accurate test results. Further, Thalys will use its Shanghai-based laboratory to further develop and distribute GA-map® tests in China.

The company receives income from both sale of products, which are mainly the sale of reagent and sample collection kits, and services, which include software licensing and revenues from testing in GA's lab in Oslo. Product sales have been very inconsistent, with a noticeable drop in 2020, which has been stated to be caused in part due to Covid-19 pandemic. Service income has been smoother, with exception to 2020, which was affected by a large service analysis agreement to a pharma company.

Genetic Analysis has been considerably successful in receiving R&D grants. Particularly, funding from Norwegian government-associated agencies and EU research programs. Norwegian Research Council, SkatteFUNN and EU Seventh Framework have been the major contributors. Furthermore, R&D support from external partners has had a material impact to GA as well. More information of other income can be found in Financials.

Genetic Analysis Market segments

Companion diagnostics

- Approximately USD 4.7bn has been invested into microbiome altering drugs, ~700 clinical studies are underway and several projects already in late stage.[1]
- The microbiome drug market is expected to increase rapidly and reach USD 1,815m by 2028 at a CAGR of 34.6% from USD 222m in 2021.[2] Microbiome altering drug market development is a key part of GA's offering success.
- GA is preparing to partner with pharma companies as accurate diagnostic tools and procedures will be needed to accompany these products.

Medical diagnostics

- Genetic Analysis believes that post-covid there will be more concerns for health and immune system strengthening by focusing on their microbiota's well-being.
- Long-covid monitoring thought patient's gut microbiota can be a potential break-thought category for diagnostics.
- Additionally, focus on sustaining income from patients monitoring their microbiota over time expands the Company's recurring income.

Source: Eurofins

Research diagnostics

- As many drugs and medicine impact the microbiome and treatment itself can be conditional on the microbiome state, demand for standardized gut microbiome testing is increasing.
- Genetic Analysis has achieved a milestone by securing a service agreement with French Eurofins ADME Bioanalyses, a global contract research organisation with ties to big pharmaceutical companies.
- GA has partnered with Institute for Medical Diagnostics (IMD), and IMD has launched a new Microbiome laboratory in Germany. The partnership is expected to bring in high-volumes from in-clinical research and routine diagnostic areas.

Source: IMD Berlin

Consumer diagnostics

- The consumer market is growing quickly and consumers are willing to pay for self-tests to get measurable results.
- As self-testing for health, ancestry and fitness gain in popularity, and interest in microbiome testing grows online, GA is exploring opportunities to partner up and offer their tests to the broader public.
- GA is currently exlporing opportunities to find partners within the direct-to-consumer space.

[1]Microbiometimes.com
[2]360ResearchReports

Human microbiome market estimates

Research house	CAGR	Projection interval
Mordor Intelligence	15.0%	2021-2027
IMARC Group	18.0%	2021-2026
Research and Markets	22.2%	2021-2028
The Insight Partners	23.6%	2019-2027
Markets and Markets	31.1%	2023-2029

Market Overview

In the past decade the human microbiome market has been increasingly gaining traction and recognition of importance, especially in the West. EU investment in microbiome-related studies and projects until 2017 has reached up to EUR 600m.[3] In 2019, three promising projects aimed to deliver high impact through validated clinical tools have received EU funding of EUR 44m.[4] GA has benefited in this sphere too, previously receiving grants from the EU and Norwegian government-related entities.

According to various market research, the human microbiome market is estimated to be around USD 600m as of 2021. Excluding the most conservative and aggressive estimates, we see the human microbiome market growing at an approximate compound annual growth rate (CAGR) of 20% until the year 2027. North America and Europe is foreseen to be the main drivers of microbiota market growth. However, most of the market size is attributed to drugs and diagnostics takes up only a small part of the overall microbiota market.

Competition, obstacles and opportunities

Genetic Analysis has developed the GA-map® platform, which according to the Company is currently the only patented and CE-marked routine diagnostic tool for the intestinal microbiota on the market. It should be noted that there are microbiota tests in the market available, but they are based on non-standardized testing. A good way to understand the difference in the standardized test of GA-map® and non-standardized tests would be to see it as a difference in SAT and teacher-created exams. Both measure the same thing, but the SAT results are understood by all professionals and can be reliably compared in time, while the teacher-made exam is mostly primarily only to the person who made the exam.

As the market for microbiota tests is otherwise characterized by in-house testing, the Board and management of the Company assess that there are currently no distinct competitors to Genetic Analysis. In addition, according to the company, it claims strength in quickness and accuracy of their tests, and its business spans wider than just as a service provider. However, as Genetic Analysis and the microbiota field matures companies with directly competitive diagnostic products may emerge.

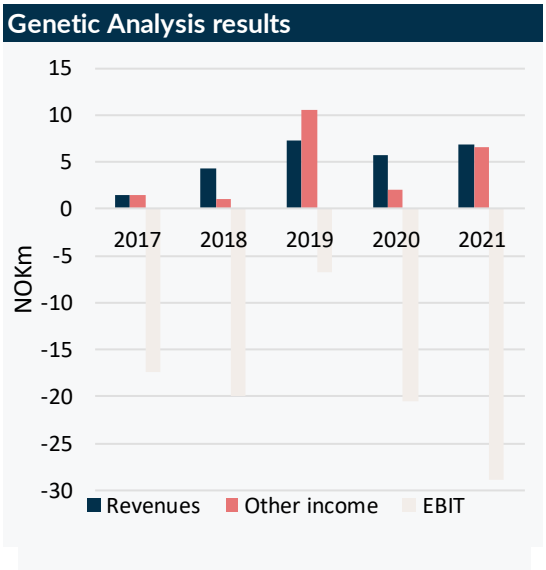
Further, from May 26th, 2022, the EU has entered into the In Vitro Diagnostics Regulation (IVDR). However, with a serious shortage of notified body capacity, a progressive roll-out should be carried out. This regulation should help Genetic Analysis in two ways:

- Among other things, the regulation will curb health institutions from using in-house devices. These rules will propel the use of CE-marked devices and platforms. GA is preparing for this implementation and the Company will gain favourable positioning in persuading EU laboratories to start using the CE-marked GA-map® platform.
- No significant change is proposed for CE-marked devices, including the GA-map®. This brings a layer of security from threat of competitors for Genetic Analysis, as potential competitors will most likely have to go through a long regulatory process.

As Genetic Analysis is a very small player, even in a small human microbiome market, it is unlikely that it will be the shaper of the sphere development. It is important to look at other companies in the microbiota field, even if they are not directly in diagnostics. The way human microbiota market develops most likely will be formed by the big corporations and consumer trends, with governments lacking behind.

[3] Regulatory Affairs Professionals Society
[4] Hadrich, 2020

Financials



Source: Genetic Analysis, Norne Securities

Genetic Analysis' 2017-2021 operations were loss making, with very volatile revenues and increasing costs. This is normal for a firm in this business life cycle. Around 46% of total income in the period was generated from areas considered as other income, such as R&D grants from EU and Norwegian government entities, financial support from partners and minimum purchase commitments from partners, where no COGS incurred. Over the period of 2017-2021, in total, GA has received over NOK 25m in R&D grants or cost reductions. It is very likely, that the Company will continue to receive grants and similar other revenues, but this is highly unpredictable and will not be reflected in our subsequent analysis, thus upward revisions in income might boost GA model standings. Costs have been increasing due to ongoing development and rising employee costs, 2021 bringing a total net loss of NOK 29m. 1Q22 was in line with 2021 results, bringing in NOK 2.5m in sales revenue and a bottom line of NOK -7.7m.

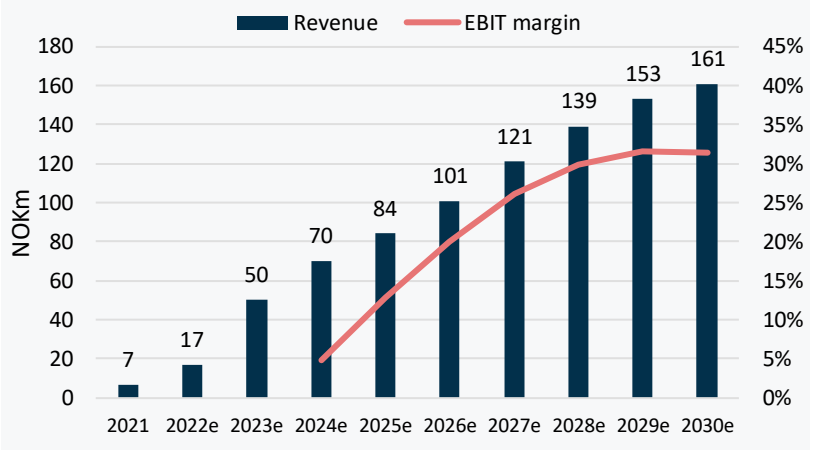
At the end of 1Q 2022, GA had total assets worth NOK 74.9m and equity of NOK 64.5m, corresponding to an equity ratio of 86%. Genetic Analysis has 39.8m in cash and cash equivalents, which at current burn rate is seen to be sufficient until around 1H23. The Company has very little long-term interest-bearing debt at NOK 1.4m with average effective interest rate for 2021 of 5.6%. GA has been financing itself by completing capital placements. Genetic Analysis has completed an IPO and listed on the Spotlight stock market in Stockholm on October 1st, 2021. GA has raised NOK 60.1m in an oversubscribed issue by issuing 7.7m shares at NOK 7.8 per share. In addition to the issued shares, the Company has granted each subscriber warrants exercisable at a price of NOK 9.3 in November 2022 and NOK 10.7 in November 2023. If fully exercised, the warrants after issue costs can bring in a total of approximately NOK 95m.

Estimates

Genetic Analysis has a growth plan to reach increased volumes and revenues in the following years by expanding the commercialization of the current product portfolio within IBS / IBD in the EU and the US. The Company has financial targets of sales NOK 25-35m in 2022 and NOK 50-70m in 2023 and break-even at current costs and R&D levels in the year 2023. It should be repeated, that while highly probable to take effect, but the estimates do not include streams of other income, such as R&D grants and partner support. We cautiously expect that GA will bring in NOK 17m in sales for 2022 and reach the low-end levels of their financial sales targets of NOK 50m in 2023. The upper-end 2023 target of NOK 70m is conservatively anticipated to be reached in 2024. Additionally, we project the Company to have positive EBIT from the start of 2024. As there is no guidance for the following years, for revenue growth until 2027 we see the overall microbiota market CARG rounded consensus of 20% as a good projection. Afterwards the growth is projected to slow down by 5%p each year, reaching 5% by 2030.

Genetic Analysis has had an average gross margin of 75% for 2017-2021 and expects a reliable gross margin of around 70%. Wages is the largest expense for Genetic Analysis, and we predict that expenses for the Company's skilled workforce will grow at 6%, double the foreseen wage growth in Norway at 3% by Norges bank. Other operational costs (excluding IPO costs) are projected to grow at 5% at current costs for the foreseeable periods.

Genetic Analysis result expectation



Source: Genetic Analysis, Norne Securities

Genetic Analysis is expected to become net positive in 2Q24 and steadily growing. However, the current net burn rate is at around NOK 2.5m per month, and the Company will need financing in or around 1H23. So far, very limited debt financing has been used, which has been received from Innovasjon Norge. Even though GA has warrants maturing in November 2022 with maximum inflow of NOK 40.5m, at an exercise price of NOK 9.7 it is unlikely they will be used given current share price of NOK 3.2. We anticipate that a Private Placement will be conducted in 1H23. In our modelling, an issue of 11m new shares at a placement price of NOK 3/sh is expected, bringing in a total of NOK 33m. To arrive at the placement price of NOK 3/sh, we take the current share price of NOK 3.2 and add a discount to account for the uncertainty and a rather significant share dilution. The share issue would dilute the current shareholding by about 44%.

Valuation

Our base case valuation returns fair value of around NOK 4.7/sh. To arrive at the conclusion, we use the Discounted Cash Flow valuation with a long-term growth of 2.5% and a weighted average cost of capital of 14.5%. With cautious earning modelling, a beta of 2 and a high WACC, we feel a sufficiently high risk premium is added and the valuation of GA's shares is relatively conservative.

DCF model

NOKm	2Q-4Q 2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenues	**15**	**50**	**70**	**84**	**101**	**121**	**139**	**153**	**161**
EBIT	-21	-8	3	11	20	32	41	48	51
Tax on EBIT	0	0	-1	-2	-4	-7	-9	-11	-11
NOPLAT (+)	-21	-8	3	8	16	25	32	38	39
Depreciation & amortization (+)	3	4	4	4	4	4	4	4	4
Capital expenditure (-)	-3	-4	-4	-4	-4	-4	-4	-4	-4
Change in working capital (- or +)	-3	-10	-4	-4	-6	0	0	2	3
Free Cash Flow to the Firm	**-24**	**-18**	**-2**	**5**	**10**	**25**	**33**	**40**	**43**
NPV of FCFF	-22	-15	-1	3	5	12	13	14	13

WACC calculation	
Debt ratio	5.0%
Cost of debt (after tax)	5.0%
Risk free rate	3.0%
Beta	2.0
Market risk premium	6.0%
Cost of equity	15.0%
WACC	**14.5%**

Valuation, NOKm	
Net debt	-38
Minority interest	0
NPV cash flow	
2Q-4Q 2022E - 2030E	22
2031E -	111
Total NPV cash flow	134
Equity value	172
Value per share, NOK	**4.66**

Assumptions	
L.t. growth	2.5%
Tax rate	22%
# shares, m*	36.9

*Including PP of 12m shares @ NOK 3/sh in 2023

Sensitivity analysis

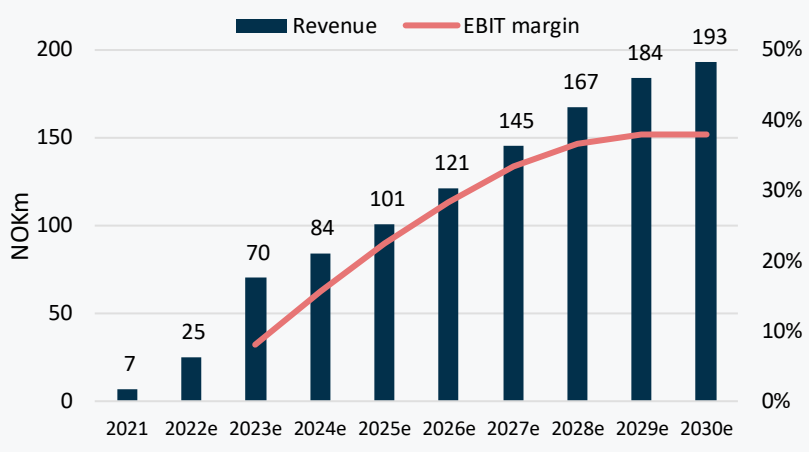
NOK/share		L.t. growth rate				
		1.5%	**2.0%**	**2.5%**	**3.0%**	**3.5%**
WACC	**13%**	5.3	5.5	5.7	5.9	6.1
	14%	4.7	4.8	5.0	5.1	5.3
	15%	4.4	4.5	4.7	4.8	5.0
	16%	3.7	3.8	3.9	4.0	4.1
	17%	3.4	3.4	3.5	3.6	3.7

Scenarios

Genetic Analysis valuation			
	Bear	Base	Bull
Valuation	2.5	**4.7**	8.2
Premium / Discount	-21%	**46%**	155%

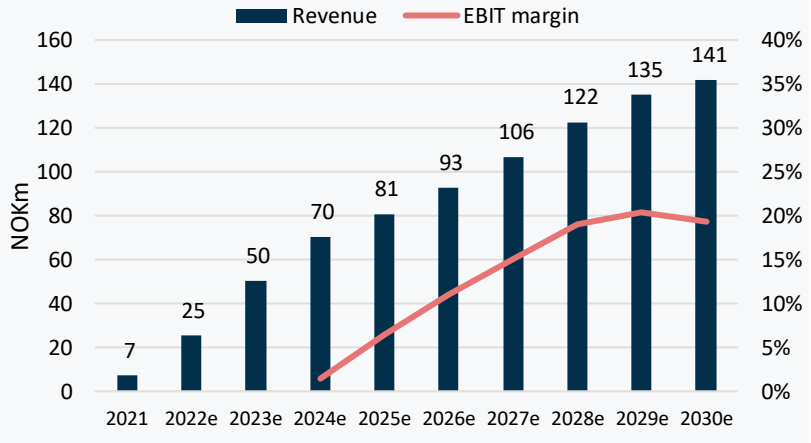
For our Bull case scenario valuation, we assume Genetic Analysis will manage to accelerate their sale development in the US and EU markets. With this progress the Company would achieve their low-end level of revenue goals for 2022 and high-end goal for 2023 of NOK 25m and NOK 70m, respectively. Following that development, GA would most likely need less funding in 2023, and the assumption of 11m new shares decreases to 8m. With these upside revisions to our model, we obtain a fair value for Genetic Analysis shares of around NOK 8/sh.

Genetic Analysis bull case estimates



Our Bear case scenario assumes that Genetic Analysis will not sustain a revenue growth that is forecasted as the CARG of the market and our base case scenario. For the years we predict that turnover will be growing at a reduced rate of 15% per year, the lowest estimated CAGR from our collected microbiome market projections. At the same time, we estimate higher operational costs, rising by 5%p from our base case to 10% yearly growth. With both revenue and cost amendments to our model, the valuation of the share price of Genetic Analysis is brought down to around NOK 2.5/sh.

Genetic Analysis bear case estimates



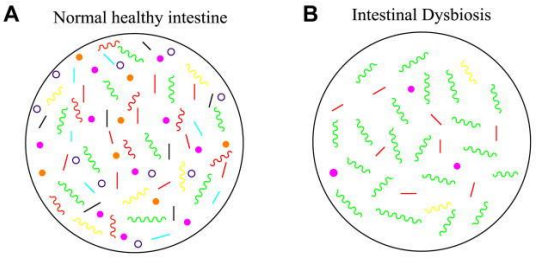
Microbiome and dysbiosis

Source: Igen BioLab Group

The microbiome is defined as the collective genomes of the microbes (composed of bacteria, bacteriophage, fungi, protozoa and viruses) that live inside and on the human body.[5] The human gut is of importance, as it contains billions of bacterial cells and more than 1,000 different bacterial species. In normal conditions of healthy individuals, there is cross-regulation between the host and the microbiota, which creates a homeostatic balance of bacteria.[6] The imbalance between different bacteria ratios, changes in their functional composition and metabolic activities, or changes in their local distribution is called "dysbiosis".[2, 7]

Dysbiosis can be caused by many factors, of which diet is one of the most important factors.[2] This can be best seen in breast-fed versus formula-fed infants. Further, high intake of animal protein, sugars, saturated fats is thought to be linked to more frequent cases of dysbiosis, while diets high in fibre are shown to have a higher gut microbial diversity.[2] Additionally, antibiotic exposure or alcohol misuse are also linked to dysbiosis.

Dysbiosis - associated diseases



Source: DeGruttola et al., 2016

Inflammatory bowel disease (IBD)

- IBD is a term for two conditions (Crohn's disease and ulcerative colitis) that are characterized by chronic inflammation of the gastrointestinal tract (CDC)
- The exact cause of IBD is unknown, but with growing research, dysbiosis is hypothesized to be one of the likeliest causes of IBD.

Irritable bowel syndrome (IBS)

- IBS is the most common functional digestive condition in the industrialized world.[8]
- The disease is usually a lifelong problem, symptoms include stomach cramps, bloating, diarrhoea and constipation.
- Among other factors, IBS is characterized to be triggered by gut microbial dysbiosis.[9]

Obesity

- Obesity is a disease that is on the rise in many countries, in 2014, about 78 million adults and 12 million children are obese in the United States.[2]

Colorectal Cancer (CRC)

- CRC is a cancer formed in the colon or rectum, mostly developing due to factors such as old age, family history of diseases and genetics.[10]
- It is one of the most common causes of cancer, making up around 10% total cancer cases.[11]

[5] National Human Genome Research Institute
[6] DeGruttola et al., 2016
[7] Belizário and Faintuch, 2018
[8] Wang et al., 2019
[9] Chong et al., 2019
[10] National Cancer Institute
[11] World Cancer report 2014

Type 2 diabetes (T2D)

- Several studies have reported gut microbiome dysbiosis as a factor in rapid progression of insulin resistance in T2D that accounts for about 90% of all diabetes cases worldwide[12]

Liver diseases

- Non-alcoholic fatty liver disease (NAFLD) and Non-alcoholic Steatohepatitis (NASH) are liver diseases associated with accumulating fats in the affected liver cells
- These diseases are the most common liver disorders, affecting around 25% of the global population.[13]

[12] Sharma and Tripathi, 2019
[13] Marjot et al., 2019

Annual financial data

Profit & Loss (NOKm)	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
Revenues	**1**	**4**	**7**	**6**	**7**	**17**	**50**	**70**	**84**	**101**	**121**
Other income	1	1	11	2	7	2	-	-	-	-	-
COGS	-0	-2	-2	-1	-1	-6	-15	-21	-25	-30	-36
Wages	-9	-13	-14	-16	-23	-25	-26	-27	-29	-31	-33
Other operational costs	-9	-8	-6	-6	-14	-13	-13	-14	-15	-15	-16
EBITDA	**-16**	**-18**	**-4**	**-16**	**-24**	**-24**	**-4**	**8**	**15**	**24**	**36**
Depreciation	-2	-2	-2	-5	-5	-4	-4	-4	-4	-4	-4
Adj. EBIT	**-17**	**-20**	**-7**	**-21**	**-29**	**-29**	**-8**	**3**	**11**	**20**	**32**
Non-recurring costs	-	-	-	-1	-	-	-	-	-	-	-
EBIT	**-17**	**-20**	**-7**	**-22**	**-29**	**-29**	**-8**	**3**	**11**	**20**	**32**
Net financial items	-2	-3	-0	-0	-0	-0	-0	-0	-0	-0	-0
Pretax profit	**-20**	**-22**	**-7**	**-22**	**-29**	**-29**	**-9**	**3**	**10**	**20**	**31**
Taxes	-	-	-	-	-	-	-	-	-	-	-
Net profit	**-20**	**-22**	**-7**	**-22**	**-29**	**-29**	**-9**	**3**	**10**	**20**	**31**
EPS rep. (NOK)	**-0.28**	**-0.33**	**-0.10**	**-0.21**	**-1.43**	**-1.16**	**-0.28**	**0.08**	**0.28**	**0.54**	**0.85**
EPS adj. (NOK)	**-0.22**	**-0.25**	**-0.10**	**-0.20**	**-1.43**	**-1.16**	**-0.28**	**0.08**	**0.28**	**0.54**	**0.85**
Margins											
Operating margin	nm	nm	nm	nm	nm	nm	nm	5%	13%	20%	26%
ROE	nm	nm	nm	nm	nm	nm	nm	4%	11%	17%	22%
ROCE	nm	nm	nm	nm	nm	nm	nm	4%	11%	18%	22%
Tax rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Balance sheet (NOKm)	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
Intangible assets	16	19	26	26	24	23	23	23	23	23	23
PP&E	1	1	3	2	2	2	2	2	2	2	2
Fixed assets	**17**	**20**	**29**	**28**	**26**	**25**	**25**	**36**	**35**	**34**	**35**
Financial assets	9	-	-	-	-	-	-	-	-	-	-
Long term assets	**26**	**20**	**29**	**28**	**26**	**25**	**25**	**36**	**35**	**34**	**35**
Inventories	-	-	1	2	2	3	8	11	13	17	16
Accounts receivable	4	6	12	2	8	10	18	21	23	27	30
Cash and cash equivalents	22	20	4	24	47	15	32	31	37	51	83
Current assets	**26**	**26**	**17**	**28**	**58**	**29**	**59**	**63**	**73**	**94**	**129**
Total assets	**52**	**46**	**46**	**56**	**83**	**54**	**84**	**98**	**109**	**129**	**164**
Shareholders equity	**46**	**39**	**34**	**47**	**72**	**43**	**70**	**84**	**94**	**113**	**145**
Long-term liabilities	**2**	**2**	**3**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Accounts payable	1	1	1	2	2	2	5	6	6	8	11
Other short term liabilities	4	5	8	6	8	7	7	7	7	7	7
Current liabilities	**5**	**6**	**9**	**8**	**10**	**9**	**12**	**13**	**13**	**14**	**18**
Total liabilities and equity	**52**	**46**	**46**	**56**	**83**	**54**	**84**	**98**	**109**	**129**	**164**
Working Capital	3	5	12	2	8	11	21	26	30	36	35
Net IB debt	-20	-18	-1	-23	-45	-14	-31	-30	-36	-50	-82
Capital employed	48	41	36	48	74	45	72	85	95	114	146
Net IB debt / equity	-44%	-47%	-4%	-49%	-63%	-33%	-44%	-36%	-39%	-44%	-56%
Equity / total assets	87%	83%	74%	84%	86%	80%	84%	85%	87%	88%	88%

Cash flow (NOKm)	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
Pre-tax Profit (loss)	-20	-22	-7	-22	-29	-29	-9	3	10	20	31
Depreciation & Amortization	2	2	2	6	5	4	4	4	4	4	4
Stock options	0	2	2	2	1	0	-	-	-	-	-
Taxes paid	-	-	-	-	-	-	-	-	-	-	-
Loss from disposal of listed equity securities	1	2	-	-	-	-	-	-	-	-	-
Cash earnings in operations	**-17**	**-16**	**-2**	**-14**	**-23**	**-24**	**-4**	**7**	**15**	**24**	**36**
Changes in Inventory	-	-	-1	-1	-0	-1	-5	-3	-2	-4	0
Changes in trade receivables	-1	-1	-6	6	-6	-1	-8	-3	-2	-3	-4
Changes in trade payables	-0	0	-0	1	1	-0	3	1	0	1	4
Changes in other current items	-1	1	3	1	2	-1	-	-	-	-	-
Cash flow from operating activities	**-18**	**-16**	**-6**	**-7**	**-28**	**-28**	**-15**	**3**	**11**	**18**	**36**
Purchase of property, plant and equipment	-1	-1	-0	-0	-1	-0	-0	-0	-0	-0	-0
Purchase of intangible assets	-3	-4	-8	-5	-2	-3	-4	-4	-4	-4	-4
Payments from disposal of listed equity securities	5	12	-	-	-	-	-	-	-	-	-
Cash flow from investing activities	**1**	**7**	**-8**	**-5**	**-3**	**-3**	**-4**	**-4**	**-4**	**-4**	**-4**
Free cash flow	**-17**	**-10**	**-15**	**-12**	**-31**	**-31**	**-19**	**-1**	**6**	**14**	**32**
Repayment of borrowings	-4	-1	-0	-0	-	-0	-	-	-	-	-
New share issues & share buy-backs (+/-)	8	8	-	33	54	-	36	-	-	-	-
Installments on leasing liabilities	-	-	-1	-1	-0	-0	-	-	-	-	-
Cash flow from financing activities	**4**	**8**	**-2**	**32**	**54**	**-0**	**36**	**-**	**-**	**-**	**-**
Change in Cash and Cash Equivalents	**-12**	**-2**	**-16**	**20**	**23**	**-31**	**17**	**-1**	**6**	**14**	**32**

Share data	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
Shares outstanding, year end (mill.)	68.684	68.684	68.684	103.026	24.916	24.916	36.916	36.916	36.916	36.916	36.916
Share price, year end (NOK)	-	-	-	-	6.24	3.20	3.20	3.20	3.20	3.20	3.20
Market cap (NOKm)	-	-	-	-	155	80	118	118	118	118	118
Enterprise value (NOKm)	-20	-18	-1	-23	110	66	87	89	82	69	37
EPS rep. (NOK)	-0.28	-0.33	-0.10	-0.21	-1.43	-1.16	-0.28	0.08	0.28	0.54	0.85
EPS adj. (NOK)	-0.22	-0.25	-0.10	-0.20	-1.43	-1.16	-0.28	0.08	0.28	0.54	0.85

Valuation	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
EV/Sales	-13.6	-4.2	-0.2	-3.9	16.2	3.9	1.7	1.3	1.0	0.7	0.3
EV/EBITDA	1.3	1.0	0.3	1.4	neg.	neg.	neg.	11.7	5.5	2.8	1.0
EV/EBIT (adj)	1.1	0.9	0.2	1.1	neg.	neg.	neg.	26.8	7.6	3.4	1.2
P/E (adj)	-	-	-	-	neg.	neg.	neg.	39.0	11.3	6.0	3.8
P/B (excl. goodwill)	na	na	na	na	2.2	1.8	1.7	1.4	1.3	1.0	0.8

Growth (YoY)	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
Revenues	nm	196%	68%	-21%	18%	150%	194%	40%	20%	20%	20%
EBITDA	nm	nm	nm	nm	nm	nm	nm	nm	98%	62%	47%
EBIT (adj)	nm	nm	nm	nm	nm	nm	nm	nm	>100%	86%	57%
Pre-tax profit (rep)	nm	nm	nm	nm	nm	nm	nm	nm	>100%	89%	58%
Net profit (adj)	nm	nm	nm	nm	nm	nm	nm	nm	>100%	89%	58%
EPS (rep)	nm	nm	nm	nm	nm	nm	nm	nm	>100%	89%	58%
EPS (adj)	nm	nm	nm	nm	nm	nm	nm	nm	>100%	89%	58%

Margins	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
EBITDA (adj)	nm	nm	nm	nm	nm	nm	nm	10.9 %	17.9 %	24.1 %	29.6 %
EBIT (adj)	nm	nm	nm	nm	nm	nm	nm	4.7 %	12.8 %	19.9 %	26.1 %
Pre-tax profit	nm	nm	nm	nm	nm	nm	nm	4.3 %	12.5 %	19.6 %	25.8 %
Net profit (adj)	nm	nm	nm	nm	nm	nm	nm	4.3 %	12.5 %	19.6 %	25.8 %

Profitability	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E
ROE	nm	nm	nm	nm	nm	nm	nm	3.6 %	11.1 %	17.5 %	21.6 %
ROCE	nm	nm	nm	nm	nm	nm	nm	3.9 %	11.3 %	17.5 %	21.6 %
Dividend yield	na	na	na	na	-	-	-	-	-	-	-

Management

Ronny Hermansen – Chief Executive Officer

- CEO of Genetic Analysis since 2015, was employed as CFO of the Company in 2014.
- Mr. Hermansen has more than 20 years of experience from the international diagnostic industry, with tenure in companies such as Axis-Shield as CFO and Finance Director, various positions in Nycomed.
- MsC in Financial Controlling from Aalborg University.

Eilert Aamodt – Chief Financial Officer

- Joined GA as CFO in 2021, previously worked as a Business Consultant within Finance, IT and ERP-systems.
- Broad knowledge with 20 years of financial and managerial experience from companies within media, industrials and diagnostics including Nycomed and GE Healthcare.
- MSc in Business Administration from University of Erlangen-Nuremberg.

Anita Patel Jusnes – Chief Commercial Officer

- CCO in GA since 2020, previously held various positions in pharma companies including GlaxoSmithKline, Pronova Biopharma and Novartis.
- Broad knowledge in product launches, development and execution of growth strategies and leading high-performing teams.
- Msc in Pharmacy from University of Oslo.

Christina Casén – Senior VP Clinical & Medical Affairs

- Joined GA in 2009 as Clinical & Regulatory Director, in 2021 transitioned to Senior VP.
- More than 20 years of experience from international diagnostic industry, including Abbott Diagnostic Division, Axis Shield plc and several biotech start-up companies.
- Msc in Molecular Cell Biology from University of Oslo.

Kari Furu – Chief Technology Officer

- Joined GA as CTO from 2016, previously worked at Cancer Registry of Norway and the University of Oslo.
- Has more than 10 years of experience from molecular biological research, product development and in vitro diagnostics.
- PhD in Molecular Biology from University of Oslo.

Lars Tiller – Head of Operations

- Joined Ga in 2022, previously gained experience from Axis-Shield PoC, Alere Technologies and Nabas.
- Has broad experience in production management, with focus on quality and cost-efficiency.
- MsC in Biotechnology from the Norwegian University of Life Sciences (NMBU).

Board of Directors

Per Matsson – Chairman of the Board

- 35 years of international experience in the diagnostic industry, with executive management positions such as CTO in Phadia and as CTO in Thermo Fischer Scientific ImmunoDiagnostics division.
- Mr. Matsson is currently working as a senior advisor and board member for several companies and industry organizations, is actively involved as a co-founder and chairperson in several diagnostic companies.
- Scientific advisor to the UK listed Intuitive Investments Group plc, a venture fund concentrating on investing in fast-growing and/or high potential life sciences businesses.
- PhD in cell biology from Swedish University of Agricultural Sciences and MBA from Uppsala University. Appointed assistant professor at the Uppsala University and at the Swedish University of Agricultural Sciences.

Camilla Huse Bondesson – Board Member

- Ms. Bondesson is currently Chairman of the Board of Immuneed AB and TdB Labs AB.
- Over 30 years of experience in companies in the biotechnology field, including as Head of Behring Diagnostica AB, International Product Manager for Biacore, Marketing Manager for Amersham Biosciences and VP Marketing for Gyros AB.
- EMBA from Stockholm University.

Staffan Strömberg – Board Member

- Mr. Strömberg is currently CEO of Infant Bacterial Therapeutics AB
- More than 20 years of experience in the pharmaceutical industry, including positions as Head of Medical Devices at the Swedish Medical Products Agency, Vice President of Nicox France, and management positions at AstraZeneca.
- PhD from KTH Royal Institute of Technology in Stockholm.

Andrew Stapleton – Board Member

- Vice President in the Corporate Business Development team in Bio-Rad Laboratories, with focus on M&A and Corporate Ventures.
- Over 30 years of international experience from executive management positions and senior roles in the life science and diagnostic industries.
- PhD in Biochemistry from the University of Manchester and a MBA in Strategic Management from John F. Kennedy University.

Rune Sørum – Board Member

- Currently a Partner in Televenture Management, was a private investor and a senior adviser for European companies working in both Asia and the Middle East.
- Mr. Sørum has held several board positions in Norwegian investment companies.
- MsC in Business and Economics from Copenhagen School of Economics and Business Administration.

Top 30 Largest Shareholders

Bio-Rad Laboratories Inc. is the largest shareholder in Genetic Analysis with 21.3% ownership. Bio-Rad is a customer of GA, and holds a non-exclusive distribution right in USA, Europe and Asia (except China). The Company also has representation in GA with Bio-Rad Corporate Strategy VP Ashok K. Shah as a board member in GA.

Biohit Oyj is the second known largest shareholder with 5.7% ownership. Biohit is a partner and distributor of GA Dysbiosis Test in Europe. In the future, Genetic Analysis also has an opportunity to operate as a distributor of Biohit Oyj's products and services in Norway.

The management of the Company holds a total of 1.8% of shares in Genetic Analysis. Avanza Bank AB, Nordnet Bank AB, Svenska Handelsbanken AB and DNB Bank ASA are nominee accounts holding 37.4% shareholding, with no current means to find out the actual original investors.

Top 20 Shareholders			
		Shares Held (thousand)	Ownership
1	Avanza Bank AB	6,924	27.8%
2	Bio-Rad Laboratories Inc.	5,297	21.3%
3	Nordnet Bank AB	2,086	8.4%
4	Biohit Oyj	1,424	5.7%
5	Molver AS	645	2.6%
6	LJM AS	552	2.2%
7	S. Munkhaugen AS	484	1.9%
8	Jama Holding AS	429	1.7%
9	Bjelland Capital I AS	423	1.7%
10	Rolfs Holding AS	421	1.7%
11	Svenska Handelsbanken AB	305	1.2%
12	Lucellum AS	275	1.1%
13	Per Anton Invest AS	268	1.1%
14	Grøttum, Tore	266	1.1%
15	Sagahill AS	258	1.0%
16	Ochrino AS	256	1.0%
17	Lemica AS	253	1.0%
18	Frostad Invest AS	227	0.9%
19	Nordnet Livsforsikring AS	223	0.9%
20	Ola Rustad AS	189	0.8%
Top 20		21,206	85.1%
Others		3,710	14.9%
Total		24,916	100.0%

Source: Genetic Analysis, as of 31/03/2022

Valuation, risk, and sources

Valuation

To arrive at our fair value price estimates, we have used rounded DCF result for different scenario valuations.

Risks

The main risks to our target price on Genetic Analysis:

- **New and narrow market** – The market is still developing and other methods of testing and evaluation may still appear from competition.
- **Regulatory framework uncertainty** – There is currently no US legislation in place to directly regulate human microbiome sphere, and the formation of such frameworks might bring risks to GA's business model.
- **Distributor performance** – Genetic Analysis performance is reliant on the chosen distributors ability to sell the kits to the labs.
- **Dependency on microbiome enhancing drugs** – To reach the full potential of the GA-map test, the treatments that would improve gut flora and dysbiosis medications are needed to reach the market.
- **Delays and increased development costs** – Cost planning related to development of new biomarkers is difficult to forecast accurately, and delays may add significant costs.
- **Financing risks** – Until the Company becomes profitable, additional funding either through additional share issuance or debt will have to be secured in the near future.

Sources

The sources used in the preparation of this report were: Genetic Analysis, Oslo Stock Exchange, Bloomberg, Infront, Linkedin, Belizário and Faintuch (2018), DeGruttola et al. (2016), Wang et al. (2019), Chong et al. (2019), Regulatory Affairs Professionals Society, Microbiometimes.com, 360ResearchReports, Hadrich (2020), Eagle Biosciences, Sharma and Tripathi (2019), Marjot et al. (2019), National Cancer Institute, World Cancer report 2014, Mordor Intelligence, IMARC Group, Research and Markets, The Insight Partners, Markets and Markets, European Commision.

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Responsible analyst(s)	0
All Norne analysts	0
Other Norne employees	0
Norne Securities AS	0

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